APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,360	10/16/2000	Toshihiko Oba	11934/3	6711

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EXAMINER
PIERRE, MYRIAM

ART UNIT	PAPER NUMBER
2626	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/14/06*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *35,37-39,41-45,47,51 and 113* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *35,37-39,41-45,47, 51 and 113* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☒ Certified copies of the priority documents have been received in Application No. *p11-037558,9*.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to Remarks, filed 02/09/2007.

2.   Claims 35, 37-39, 41-45, 47, 51, and 113 are pending.

3.   The allowable subject matter included in cancelled claim 49 has been withdrawn in view

of updated search.

Allowable Subject Matter

4.   The indicated allowability in cancelled claim 49, and thus amended claim 35, is

withdrawn in view of the newly discovered reference(s) to Takebayashi et al. (5,577,165).

Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if
> the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would
> have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 35, 37-39, 41-45, 47, 51, and 113 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Rueda (6,157,727) in view of Takebayashi et al. (5,577,165).

As to claim 35, Rueda teaches

A prosthetic hearing device (hearing aid, col. 2 lines 56-60) comprising:

a sensor for detecting a speech (microphone, col. 3 lines 1-10);

a speech recognition processor that performs speech recognition on the detected speech

(col. 3 lines 23-26);

wherein the speech recognition processor performs speech recognition in view of at least

one of a physical state of the user and an operating condition of the prosthetic hearing device

(col. 1 lines 53-56);

an output device (output transducer, Abstract) that outputs generated speech to the user

a speech generator (speech recognizer and processor, Fig. 1 and).

Rueda does not teach a speech generator that analyzes results of speech recognition to

comprehend a semantic meaning in the detected speech and transforms the detected speech into a

speech having a speech form assistive in understanding the semantic meaning in the detected

speech; a memory that has stored a library of images compressing still and motion pictures,

symbols, characters, notes, photos, animations, illustrations, voice spectrum patterns and colors,

wherein the speech generator selects at least one image associated with the semantic meaning in

the detected speech; and a display that displays the selected at least one image associated with

the semantic meaning in the detected speech.

However, Takebayashi et al. do teach a speech generator that analyzes results of speech

recognition to comprehend a semantic meaning in the detected speech and transforms the

detected speech into a speech having a speech form assistive in understanding the semantic

meaning in the detected speech (col. 6 lines 44-50);

a memory that has stored a library of images compressing still and motion pictures (col.

18 lines 27-37), symbols (text, col. 7 lines 25-38), characters (text, col. 7 lines 25-38), notes

(text, col. 7 lines 25-38), photos (animated picture, col. 18 line 33), animations (col. 18 lines 31-

34), illustrations (human character image, col. 18 lines 35-39), voice spectrum patterns (Fig. 3)

and colors (col. 25 lines 14-16), wherein the speech generator selects at least one image

associated with the semantic meaning in the detected speech (col. 7 lines 23-31 and col. 6 lines

44-50); and

a display that displays the selected at least one image associated with the semantic

meaning in the detected speech (col. 7 lines 30-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to implement Takebayashi et al. semantic recognition into Rueda's speech generator

system in order to provide a speech dialogue system for improving human-computer interaction,

because in conventional speech dialogue system, the speech response is usually given by a

mechanical voice reading obtained by a text composition without any modulation of speech tone,

so that it has often been difficult for the user to hear the message, (Takebayashi et al., Abstract

and col. 2 lines 23-34).

As to claim 37, which depends on claim 35, Rueda teaches

a speech recognition generator processor performs at least one of speaker recognition

(speech recognizer and processor, Fig. 1).

Rueda does not teach a speech generator generates the speech representing results of the

recognition.

However, Takebayashi et al. teach a speech generator generates the speech representing

results of the recognition (speech understanding unit, col. 8 lines 25-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to implement Takebayashi et al. recognition into Rueda's speech generator system in

order to provide high speech understanding of the almost freely uttered speech by using very

little restrictions regarding the manner of speech utterance imposed on the user (Takebayashi et

al., Abstract and col. 8 lines 25-30).

As to claim 38, which depends on claim 35, Rueda teaches

A prosthetic hearing device wherein the speech recognition processor transforms detected speech

in view of at least one of a an operating condition of the prosthetic hearing device and a purpose

for use of the device by the user (language translation, Abstract and col. 3 lines 20-29).

As to claim 40, which depends on claim 35, Rueda teaches

wherein the speech generator transforms the detected speech by adding thereto a

modifying language (language translation, Abstract).

As to claim 41, which depends on claim 35, Rueda teaches

wherein the speech generator reproduces a speech previously produced when it

determines the results from the speech recognition that it is necessary to reproduce the previously

produced speech (col. 3 lines 1-10 and 20-27 and col. 1 lines 1-24; necessary storing

information, thus able to reproduce it via speech generator)

As to claim 42, which depends on claim 35, Rueda teaches

wherein the speech generator reproduces speech previously produced when it determines

from the result of the speech recognition that it is necessary to reproduce the previously

produced speech (col. 1 lines 1-10 and 20-28).

As to claim 43, which depends on claim 35, Rueda teaches

the speech data generator controls an output rate of the speech data (col. 3 lines 20-28).

As to claim 44, which depends on claim 36, Rueda teaches

the output device outputs the speech using a sample speech data synthesized by the

speech generator (col. 3 lines 1-10 and 20-27; necessary in the translating process is a speech

synthesized from a speech generator).

As to claim 45, which depends on claim 35, Rueda teaches

a memory that has stored samples of speech data (Abstract, necessary in translating process),

wherein the output device outputs the sound speech data using sample speech data selected by

the speech data generator from the memory (col. 3 lines 1-10 and 20-27; necessary in the

translating process is a memory).

As to claim 47, which depends on claim 35, Rueda teaches

the speech generator generates the speech that summarizes the detected speech (col. 3

lines 1-10 and 20-27).

As to claim 51, which depends on claim 35, Rueda teaches

wherein the sensor selectively detects a speech necessarily from a specific speech source

(col. 1 lines 1-10 and 20-27).

As to claim 113, Rueda teaches

A prosthetic hearing device (hearing aid, col. 1 lines 56-60) comprising:

a sensor for detecting a speech (microphone, col. 3 lines 1-10)

a speech recognition processor that performs speech recognition on the detected speech

(col. 3 lines 23-26), wherein the speech generator transforms the detected speech in view of at

least one of a physical state of the user and an operating condition of the prosthetic hearing

device (col. 3 lines 20-29 and col. 1 lines 52-56, translation purpose)

an output device (output transducer, Abstract) that outputs generated speech to the user

a speech generator (speech recognizer and processor, Fig. 1)

Rueda does not teach a speech generator that analyzes results of speech recognition to

comprehend a semantic meaning in the detected speech and transforms the detected speech into a

speech having a speech form assistive in understanding the semantic meaning in the detected

speech; a memory that has stored a library of images compressing still and motion pictures,

symbols, characters, notes, photos, animations, illustrations, voice spectrum patterns and colors,

wherein the speech generator selects at least one image associated with the semantic meaning in

the detected speech; and a display that displays the selected at least one image associated with

the semantic meaning in the detected speech.

However, Takebayashi et al. do teach a speech generator that analyzes results of speech

recognition to comprehend a semantic meaning in the detected speech and transforms the

detected speech into a speech having a speech form assistive in understanding the semantic

meaning in the detected speech (col. 6 lines 44-50);

a memory that has stored a library of images compressing still and motion pictures (col.

18 lines 27-37), symbols (text, col. 7 lines 25-38), characters (text, col. 7 lines 25-38), notes

(text, col. 7 lines 25-38), photos (animated picture, col. 18 line 33), animations (col. 18 lines 31-

34), illustrations (human character image, col. 18 lines 35-39), voice spectrum patterns (Fig. 3)

and colors (col. 25 lines 14-16), wherein the speech generator selects at least one image

associated with the semantic meaning in the detected speech (col. 7 lines 23-31 and col. 6 lines

44-50); and

a display that displays the selected at least one image associated with the semantic

meaning in the detected speech (col. 7 lines 30-37).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to implement Takebayashi et al. semantic recognition into Rueda's speech generator

system in order to provide a speech dialogue system for improving human-computer interaction,

because in conventional speech dialogue system, the speech response is usually given by a

mechanical voice reading obtained by a text composition without any modulation of speech tone,

so that it has often been difficult for the user to hear the message, (Takebayashi et al., Abstract

and col. 2 lines 23-34).
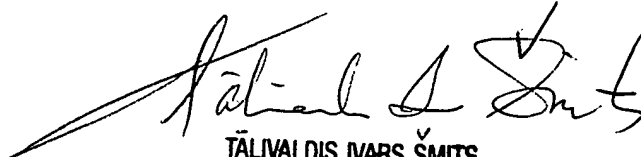
Conclusion

The prior art made of record and not relied upon but considered pertinent to applicant's

disclosure is listed on the attached PTO-892

6.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Myriam Pierre whose telephone number is 571-272-7611. The examiner

can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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3/01/07

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